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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/207,339 12/08/98 TOPPING

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EXAMINER
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WM31/0523

ALLEN W L TOPPING  
44 DELMAR STREET  
SAN FRANCISCO CA 94117

ART UNIT	PAPER NUMBER
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*BALI, Y*

*22*

2623  
DATE MAILED:

05/23/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/207,339

Applicant(s)

TOPPING ET AL.

Examiner

Vikkram Bali

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riza (US 5694216).

With respect to claim 1, Riza discloses: a light source having a predetermined spectral bandwidth for producing a collimated beam of light, a beam splitter for splitting said collimated beam of light into a plurality of beams, (see col. 6, lines 32-33); a modulating frequency source for modulating the frequency of one of said plurality of beams, a frequency shifter for shifting the frequency of said modulating frequency, a plurality of acousto-optic modulators for modulating the intensities of said respective plurality of beams, a directional coupler for reflecting, and redirecting the reflection of said one of said beams, a beam scanner for causing one of said beams to scan across said area, an optical processor for processing the combined energies of said plurality of beams, (see col. 6, lines 33-42); an electronic processor for processing data from said optical processor, a data processor for processing data from said electronic processor, (see col. 6, lines 54-55) as claimed. However, he fails to disclose: a plurality of polarizers for polarizing said respective plurality of beams; and said data processor containing a pattern recognition algorithm for comparing previously stored data with data from said electronic processor, said pattern recognition algorithm also arranged to provide an indication of the identity of said pattern based on comparing said previously stored data with said data from said electronic processor, as claimed. But, as seen from the figure 1, the light beam is polarized as it is passes through the lenses, also see col. 10, lines 24-26, wherein, the light has total polarization and rotation and to have an electronic processor for the comparison of two image signals is well known in the art of pattern recognition.

Therefore, it would have been obvious to one ordinary skilled in the art at the

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time of the invention to simply modify the Riza's system to incorporate the well known feature of image comparison for the purpose of the pattern recognition.

Claims 2 and 3 are simply the components of the interferometer.

With respect to claim 4 and 5, he further discloses: said modulating frequency source is arranged to modulate a first of said acousto-optic modulators at a first frequency; modulating frequency shifter is arranged to shift the frequency from said modulating frequency source and apply said shifted frequency to a second of said acoustooptic modulators, (see col. 6, lines 33-42) as claimed.

Claim 6 is rejected as claim 1, because claim 6 is claiming similar subject matter as claim 1.

Claims 7-9 are simply the components of the interferometer.

With respect to claims 10 and 11, he further discloses: optical processor is arranged to combine said first and second beams of light into a combined beam and detect the characteristics of said combined beam; and electronic processor is arranged to further refine the signal from said optical processor into amplitude and positional information, (see col. 6, lines 54-58) as claimed.

With respect to claims 12 and 13, Riza discloses the invention substantially as claimed and as described above for claim 1. However, he fails to disclose: data processor is arranged to utilize said analog and positional information from said electron processor to produce a binary value of said signal corresponding to said positional information; and said data processor is arranged to provide data to said pattern recognition algorithm and said pattern recognition algorithm is arranged to compare said data with known data for identifying an individual, as claimed in claim 12 and 13. But, it is well known to have analog data converted into digital data using a A/D converter and then comparing to a data previously stored in the database for individual identification.

Therefore, it would have been obvious to one ordinary skilled in the art at the time of the invention to modify the Riza's system by introducing the known features of A/D converter for converting the analog data to the digital data and comparing the digital data to the previously stored data for the purpose of the verification of the individual.

Claims 15-19 are rejected as claims 1-13, because claims 15-19 are claiming similar subject matter as claims 1-13.

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3. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riza 9US 5694216) in view of Brady (US 5892838).

With respect to claim 14, Riza discloses the invention substantially as claimed and as described above for claim 1. However, he fails to disclose: area is a fingernail of an individual whereby said system can recognize the identity of said individual, as claimed in claim 14. But is well known in the art of identification of the individual to use different biometrics of the individual to identify the individual such as human eye, facial features, fingernails etc. (see col. 2, lines 15-17 of Brady, US 5892838) as claimed.

Therefore, it would have been obvious to one ordinary skilled in the art at the time of the invention to modify the Riza's system by introducing the known features of identity verification of the individual by simply fingernail pattern comparison to identify the individual.

Claim 20 is rejected as claim 14, because claim 20 is claiming similar subject matter as claim 14.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikkram Bali whose telephone number is 703.305.4510. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703.308.6604. The fax phone numbers for

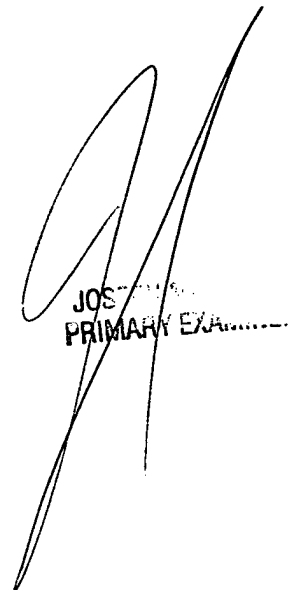
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the organization where this application or proceeding is assigned are 703.306.5406 for regular communications and 703.306.5406 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.4700.

Vikkram Bali  
Art Unit 2623

Vb.  
May 10, 2001



JOS  
PRIMARY EXA